

# NUTRACEUTICAL & FUNCTIONAL FOOD ADULTERATION

## DETECTION AND IDENTIFICATION ANALYTICAL SERVICES

### Your Regulatory and Quality Testing Service Partner

- Industry leader with global expertise from regulatory consulting to analytical testing
- Over 15 years of in-depth expertise in natural botanical ingredients in various products
- Diverse state-of-the-art key analytical platforms and technical know-how
- ISO-17025 and cGMP111, 210/211 complied and FDA registered state-of-the-art laboratory analytical capabilities

With the rapid increasing use of natural botanical ingredients and products in personal health, manufacturers and consumers are faced with more concerns with product quality in the supply chain. Quality related adulteration of key ingredients or adulteration with regulatory prohibited ingredients are among the primary concerns of regulatory bodies, manufacturers, distributors and consumers.

You can count on the in-depth expertise and capability of Intertek Champaign Laboratories and our global Intertek resources for your regulatory compliance and quality testing needs to address potential adulteration during your supply chain and product life cycle.



### The Challenge

Natural ingredients in health products are complex in chemical make-up and formulation with evolving understanding of their nutritional and other active effects. Faced with the need of assuring product quality and brand integrity, manufacturers, distributors and consumers are increasingly relying on the in-depth knowledge and analytical capability of external independent laboratories to prevent adulteration throughout the product life cycle.

### Our Solutions

Intertek can support your analytical needs in detection ingredient adulteration throughout the entire product life cycle with our global expertise from over 15 years of focused analytical work in natural ingredients in our state-of-the-art cGMP and ISO- 17025 certified laboratories. As part of our integrated service, Intertek also provides regulatory and scientific auditing services to support your supply chain process and product life cycle.

### CASE STUDY

#### Adulteration of the pharmaceutical ingredients (API) into herbal weight loss products:

Adulteration of active pharmaceutical ingredients in dietary supplements is prohibited by FDA and regulatory agencies in many countries. Faced with the concern of adulteration of several herbal weight loss products in the supply chain, the distributor leveraged the analytical expertise of Intertek Champaign Laboratories to detect the trace presence of Sibutramine and Phenolphthalein in the ingredients and soft gel supplement products. The analytical tests provided by Intertek enabled the client to take corrective action in securing the supply chain which allowed them to protect their brand and achieve regulatory compliance.

## CASE STUDY

### Product development support:

Protein derived from various natural sources is a common dietary ingredient used in functional food formulation. Due to intentional melamine contamination incidents in infant formulae, it has been a common practice for all food manufacturers to screen for contamination of melamine and derivatives in protein ingredients. Intertek provides the analysis to ensure no detectable presence of melamine and derivatives are found in ingredients used in manufacturing, thus ensuring client's regulatory compliance and product safety.



## Our Services

Intertek Champaign Laboratories, an Intertek Center of Excellence in botanical chemicals analysis, offers a suite of chemical, biochemical and microbial testing supports for natural ingredients in raw ingredients and finished products to meet quality, safety and regulatory requirements.

Our state-of-the-art laboratories are equipped with analytical technologies such as HPTLC, HPLC, GC/GC-MS, LC-MS/MS, ICP, FT-IR, RT-PCR, wet chemistry, biochemical and microbiological analysis for both raw ingredients and finished products. A range of the analytical tests for ingredient identification, potency, trace contaminants, adulteration, dissolution, stability and more are provided in our cGMP laboratories. Our laboratories can provide the analytical tests using either published (e.g., USP, AOAC) or cGMP validated methods in compliance with regulatory and client requirements.

The following are examples of our industry expertise in adulteration tests in raw ingredients and finished products:

- **Herbal supplement adulterated with**

- **impotency drug ingredients** - Sildenafil, Tadalafil, Vardenafil and their derivatives

- **Weight loss dietary supplement adulterated with drug ingredients** - Phen Phen and related drugs such as Silbutramine, Fenproporex, Phen Phen and related drugs such as Silbutramine, Fenproporex, Fluoxetine, Bumetanide, Furosemide, Phenytoin, Rimonabant, Cetilistat and Phenolphthalein
- **Food and protein products adulterated with Melamine and derivatives** - Melamine, Cyanuric acid, Ammelide and Ammeline
- **Ginkgo extract adulteration** - Buckwheat extract
- **Saw Palmetto oil adulteration** - Corn oil, olive oil and other less expensive oil substitutes
- **Chondroitin sulfate and bone health products adulteration** - Maltodextrin

We provide these services with our dedicated client services team and consult with our senior scientific and technical staff when required.

## The Intertek Advantage

Intertek is a leading Total Quality Assurance provider to industries worldwide. Through our network of more than 1,000 laboratories and offices and over 42,000 people in more than 100 countries, the Group is re-defining the industry with our Total Quality Assurance proposition.

We go beyond physical quality control to provide total peace of mind through our innovative and bespoke Assurance, Testing, Inspection and Certification solutions for our customers' operations and supply chains. Intertek Total Quality Assurance expertise, delivered consistently, with precision, pace and passion, enabling our customers to power ahead safely.

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